

with a *proviso* that the immunogenic peptide does not comprise an entire native antigen;

wherein the immunogenic peptide induces a cytotoxic T cell response when in complex with an HLA molecule and is contacted with an HLA-restricted cytotoxic T cell.

REMARKS

With this amendment, Applicants request entry of new claims 8-70 in the patent application. These claims replace pending claims 1-7. Applicants thank the Examiner for the interview with Applicants' attorneys, Ellen Weber and Timothy J. Lithgow, on July 21, 1999 in which this case was discussed. The newly added claims are being submitted as discussed in the interview.

*1. Status of the claims*

Claims 8, 28, 47, 66, and 70 recite nucleic acids encoding a peptide comprising an epitope consisting of about 8-11 residues, which epitope comprises a supermotif that is associated with binding to multiple HLA molecules. These claims add no new matter. Support for this amendment can be found, e.g., in the specification on page 2, lines 22-37, page 3, line 24 to page 4, line 2 and page 17, lines 20 to 27.

Claims 17, 36, and 55 recite an HLA-B1801, HLA-B0801, HLA-B2705, HLA-B4403, HLA-B3502, HLA-B4001, HLA-B1302, HLA-B0701, HLA-B1401, HLA-B3501, HLA-B3503, HLA-B5101, HLA-B5301, HLA-B5401 and HLA-Cw6 molecules. These claims add no new matter. Support for this amendment can be found, e.g. on page 10, Table 3.

Claim 8 recites a non-naturally occurring nucleic acid. This amendment adds no new matter. Support for this amendment can be found e.g., on page 24, lines 9-20.

Claims 15, 16, 28, 35, 53, and 54 recite a non-naturally occurring peptide. This amendment adds no new matter. Support for this amendment can be found, e.g., on page 13, lines 31-32.

Claims 11, 12, 31, 32, 47, 50, and 51 recite a nucleic acid encoding a homo- or a heteropolymer. This amendment adds no new matter. Support for this amendment can be found, e.g., on page 22, lines 21-22.

Claims 13, 33, and 51 recites a T helper epitope. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 15, lines 30-32.

Claims 14, 34, and 52 recite a cytotoxic T lymphocyte epitope. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 22, lines 21-22.

Claims 25, 44, and 63 recite the peptide linked to a carrier. This amendment adds no new matter. Support for this amendment can be found, e.g., on page 22, lines 19-28.

Claims 66 and 70 recite a peptide that is not an entire native antigen. This amendment add no new matter. Support for this amendment can be found, e.g., in the specification on page 4, lines 9-10.

Claims 18, 37, and 56 recite a cancer associated antigen. Claims 20, 39, and 58 recite a pathogenic antigen. These claims add no new matter. Support for these amendments can be found, e.g., in the specification on page 5, lines 3-4.

Claims 19, 38, 57 and recite a HER2/neu antigen, a p53 antigen, a MAGE antigen, a CEA antigen, or a prostate antigen. These amendments add no new matter. Support for these amendments can be found, e.g., on page 5, lines 6-11.

Claims 21, 40 and 59 recite an HIV antigen, an HBV antigen, an HCV antigen, an HPV antigen, or a malaria antigen. These amendments add no new matter. Support for these amendments can be found, e.g., on page 5, lines 6-11.

Claims 9, 29, and 48 recite a peptide that is more than 11 residues in length. These claims add no new matter. Support for these amendments can be found, e.g., in the specification on page 12, line 33 through page 13, line 4 and page 13, lines 27-28.

Claims 10, 30, and 49 recite a peptide of 8, 9, 10, or 11 amino acids in length. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 3, lines 24-26.

Claims 23, 26, 42, 45, 61, 64, and 67 recite a peptide or an epitope-comprising fragment thereof comprising an IC<sub>50</sub> of less than about 500 nM. This amendment adds no new matter. Support for this amendment can be found, e.g., in USSN 08/344,824, incorporated by reference in the present case, at page 49, lines 27-29.

Claims 24, 43, 62, and 68 recite a peptide or an epitope-comprising fragment thereof that comprises an  $IC_{50}$  of less than about 50 nM. This amendment adds no new matter. Support for this amendment can be found, e.g., in USSN 08/344,824, incorporated by reference in the present case, at page 57, Table 14.

Claims 22, 41, and 60 recite a peptide that is immunogenic *in vitro* or *in vivo*. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 7, lines 22-28.

Claim 66 recites a therapeutically effective dose of a peptide, and claim 69 recites a human dose of a pharmaceutical excipient. This amendment adds no new matter. Support for this amendment can be found, e.g., in the specification on page 18, lines 17-32.

Claims 27, 46, and 65 recite a viral vector. This amendment adds no new matter. Support for this amendment can be found, e.g., on page 23, line 29 to page 24, line 8.

#### CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200 or Timothy J. Lithgow at 619-860-2514.

Respectfully submitted,



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